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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,619	12/27/2003	Vladimir S. Moxson		7498

7590 03/28/2008

ADVANCE MATERIALS PRODUCTS, INC.
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EXAMINER	
ZHU, WEIPING	
ART UNIT	PAPER NUMBER
1793	
MAIL DATE	DELIVERY MODE
03/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,619	MOXSON ET AL.	
	Examiner	Art Unit	
	WEIPING ZHU	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *5-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Claims 1-4 are currently under examination, wherein no claim has been amended in applicant's amendment filed on October 29, 2007. Claims 5-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

In the reply filed on October 29, 2007, the applicant did not affirm the provisional election of the invention I, claims 1-4 made without traverse during a telephone conversation with Mr. Vladimir S. Moxson (the 1st named applicant) on September 17, 2007. The applicants' traversal is on the ground(s) that 1) the division of the Invention I , claims 1-4, drawn to a titanium matrix composite material, classified in class 75, subclass 252 and Invention II, claims 5-14, drawn to a method for manufacturing a titanium matrix composite material, classified in class 419, subclass 14 is improper because the claims 5-14 are related to the sizes, material additions, forms of carbon additions, ratios, and other parameters to achieve near full density for the invented material; 2) the applicants are not claiming consolidation methods in claims 5-14, they claim sizes, material additions, forms of carbon additions, ratios, sintering temperatures, etc. to achieve near full density; and 3) the applicant was made to believe by the examiner during the telephone conversation on September 17, 2007 that all the claims related to alloys and sizes, material additions, forms of carbon additions, ratios, sintering temperatures, etc. to achieve near full density would be allowed. This is not found persuasive because 1) the Invention II, claims 5-14, is indeed drawn to a method

for manufacturing a titanium matrix composite material despite the claims 5-14 contain other limitations as recited by the applicant, the division based on MPEP § 806.05(f) is proper; 2) the restriction requirement is based on (2) that the product as claimed can be made by another and materially different process not on (1) that the process as claimed can be used to make another and materially different product (MPEP § 806.05(f)) and in the instant case the titanium matrix composite material as claimed can be made by another and material different process such as shock wave consolidation as stated in the Office action dated September 27, 2007; and 3) in contrary to applicant's assertion, during the telephone conversation on September 17, 2007, the applicant was offered to make an oral election between the Invention I and Invention II, no patentability issue was discussed and the applicant elected Invention I without traverse.

The requirement is still deemed proper and is therefore made FINAL.

Status of Previous Rejections

2. The previous rejections of claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Chung et al. (US 5,722,037) are maintained as follows:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al. ('037) as stated in the Office action dated September 27, 2007.

Response to Arguments

4. The applicant's arguments filed on October 29, 2007 have been fully considered but they are not persuasive.

First, the applicant argues that Chung et al. ('037) require an expensive high temperature deformation to remove closed pores after the sintering step while the instant invention does not require the operation to achieve densities over 98%. In response, the examiner notes as stated in the Office action dated September 27, 2007 Chung et al. ('037) disclose that the titanium composite is characterized by a density of 93% or higher of the theoretical density with closed pores and very low porosity (col. 5, lines 1-19 and col. 6, lines 8-19). The density of the titanium composite overlaps the claimed density. A prima facie case of obviousness is established. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the closed pores in the sintered body of Chung et al. ('037) do not have to be removed by another process step in order to meet the claim density limitation of over 98%, because Chung et al. ('037) disclose the density of the sintered body is 93% or higher, which obviously overlaps the claimed range. Even if the closed pores in the sintered body of Chung et al. ('037) are removed by an expensive high temperature deformation to achieve higher densities, the density of Chung et al. ('037) still meets the claimed density limitation. Even though the instant claim 1 may be limited by and defined by the process, determination of patentability is based on the product itself. Chung et al. ('037) disclose a titanium composite (col. 6, lines 6-32), which reasonably appears to be only slightly different than the respective claimed product in claim 1. A

rejection based on section 103 of the status is eminently fair and acceptable. See MPEP 2113.

Second, the applicant argues that the complex carbide and /or silicide particles as claimed cannot be formed in the titanium alloy matrix of Chung et al. ('037) during the sintering step of Chung et al. ('037); these particles are prepared and introduced in the initial mixture of powders before sintering in the instant invention. In response, the examiner notes that 1) the patentability of a product-by-process claim does not depend on its method of production, but on the product itself; and 2) the reason that the complex carbide and /or silicide particles as claimed would be formed in the titanium alloy matrix of Chung et al. ('037) during the sintering step of Chung et al. ('037) as stated in the Office action dated September 27, 2007 is proper and maintained.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art Unit 1793

WZ

3/24/2008